Converter Automation, Utilisation of Converter Gases and Application of a Spectroscope Method for Controlling the Bessemerisation Process

in 1957 of the adoption of automation of the combine were a 5-6% increase in converter heat weight, 7-8% decrease in duration, a converter campaign life increase up to 5 1/2 from 3 months, increase in sulphur-dioxide concentration to 6-8% and savings of materials and power; production of elementary sulphur also increased and the overall productivity of the converter shop rose by 15%.
There are 4 figures and 2 Soviet references.

ASSOCIATIONS: Gintsvetmet and Alaverdskiy medno-khimicheskiy kombinat (Alaverdsky Copper-chemical Combine)

Card 3/3

1. Furnaces--Control systems 2. Waste gases--Applications
3. Sulfuric acid--Production 4. Steel--Production
5. Spectrophotometers--Applications

POLYAKOVA, V.V.; BYKHOVSKIY Yu.A.

New methods of control of copper matte converting processes.
Sbor. nauch. trud. GINTSVETMET no.15:420-428 '59. (MIRA 14:4)
(Copper--Metallurgy)
(Converters)

BYKHOVSKIY, Yu.A.

Preliminary results of introducing automatic control in copper matte converting processes. Sbor. nauch. trud. GINTSVETMET no.15:429-446 '59. (MIRA 14:4)
(Copper—Metallurgy)
(Automatic control)

BYKHOVSKIY, Yu.A., red.; VELLER, R.L., red. [deceased]; GREYVER, N.S., red.; KLUSHIN, D.N., red.; OL'KHOV, N.P., red.; RUMYANTSEV, M.V., red.; SAZHIN, N.P., red.; STRIGIN, I.A., inzh., red.; TROITSKIY, A.V., inzh., red.; MISHARINA, K.D., red. izd-va; EL'KIND, L.M., red. izd-va; VAYNSHTEYN, Ye.B., tekhn. red.

[Principles of metallurgy; in four volumes] Osnovy metallurgii; v chetyrekh tomakh. Red. kollegiia: IU.A.Bykhovskii i dr. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii. Vol.1.[General metallurgy] Obshchie voprosy metallurgii. Otv.red. N.S.Greiver i dr. Pt.1. 1961. 661 p. p.2. 1961. 780 p. (MIRA 14:8)

(Metallurgy)

BYKHOVSKIY, Yu.A., red.; VELLER, R.L.[deceased], red.; GREYVER, N.S., red.; KLUSHIN, D.N., red.; OL'KHOV, N.P.[deceased], red.; RUMYANTSEV, M.V., red.; SAZHIN, N.P., red.; STRIGIN, I.A., red.; TROITSKIY, A.V., red.; EL'KIND, L.M., red. izd-va; MISHARINA, K.D., red.; LUTSKAYA, G.A., red.; VAYNSHTEYN, Ye.B., tekhn. red.

[Principles of metallurgy in four volumes]Osnovy metallurgii v chetyrekh tomakh. Red.kollegiia: IU.A.Bykhovskii i dr. Moskva, Metallurgizdat. Vol.2. Heavy metals]Tiazhelye metally. 1962. 792 p. (MIRA 15:8)

(Iron--Metallurgy)
(Nonferrous metals--Metallurgy)

BOCHKAREV, L.M.; BYKHOVSKIY, Yu.A.; SHUMILOVA, O.P.

Smelting copper and copper-zinc sulfide concentrates in suspension with an oxygen blow. Sbor. nauch. trud. Gintsvetmeta no.19: 397-410 '62. (MIRA 16:7)

(Nonferrous metals--Metallurgy)
(Oxygen--Industrial applications)

BERLIN, Z.L.; BYKHOVSKIY, Yu.A.

Steam granulation of waste nickel slags for the purpose of utilizing their heat. Sbor. nauch. trud. Gintsvetmeta no.19: 462-474 '62. (MIRA 16:7)

(Slag) (Waste heat)

BERLIN, Z.L.; BYKHOVSKIY, Yu.A.

Experimental grounds for the steam granulation of waste nickel slags utilizing their physical heat for preheating the air blown into stack furnaces. TSvet. met. 35 no.4:28-33 Ap '62. (MIRA 15:4)

(Slag) (Waste heat)

BOCHKAREV, L.M.; BYKHOVSKIY, Yu.A.

Present state and prospects for using oxygen in certain enterprises of nonferrous metallurgy of the U.S.S.R. TSvet. met. 35 no.11: 38-43 N '62. (MIRA 15:11)

(Nonferrous metals--Metallurgy)
(Oxygen--Industrial applications)

YEGOROV, F.G.; BYKHOVSKIY, Yu.A.; BOCHKAREV, L.M.

Stoichiometric and heat calculations in the oxygen-enriched smelting of copper sulfide concentrates. TSvet. met. 36 no.10:30-34 O '63. (MIRA 16:12)

KUZNETSOVA, N.G.; BYKHOVSKIY, Yu.A.; BOCHKAREV, L.M.; SOKOLOVA, S.Ye.; CHIBIZOVA, L.A.

Behavior of refractories in furnaces of oxygen suspension smelting. TSvet. met. 37 no.11:52-58 N '64. (MIRA 18:4)

YEGOROV, F.G.; MOCHKAREV, L.M.; BYKHOVSKIY, Yu.A., kand. tekhn. nauk

Certain thermochemical regularities and stoichiometric correlations in the process of smelting copper sulfide concentrates with oxygen. Sbor. nauch. trud. Gintsvetmeta no.23:127-143 '65. (MIRA 18:12)

PARETSKIY, V.M.; BYKHOVSKIY, Yu.A., kand. tekhn. nauk; BOCHKAREV, L.M.

Methods of calculating and the design of charge injection nozzles for furnaces for oxygen-blown suspension smelting. Sbor. nauch. trud. Gintsvetmeta no.23:144-150 '65. (MIRA 18:12)

BOCHKAREV, L.M.; BYKHOVSKIY, Yu.A.; PARETSKIY, V.M.; CHAKHOTIN, V.S.

Certain physicochemical phenomena in the flame during oxygen-blown smelting of copper sulfide concentrates in suspension. TSvet. met. 38 no.11:67-75 N '65. (MIRA 18:11)

BOCHKAREV, L.M.; BYKHOVSKIY, Yu.A., kand. tekhn. nauk; KUPRYAKOV, Yu.P.; KOSTERIN, V.V.; PARETSKIY, V.M.

Pilot plant testing of the smelting of copper sulfide concentrates in suspension with an oxygen blow. Sbor. nauch. trud. Gintsvetmeta no.23:115-126 '65. (MIRA 18:12)

38168
S/058/62/000/004/069/160
A058/A101

24.1360

AUTHORS: Skobelev, O. P., Bykhovskiy, Yu. R., Pshenichnikov, Yu. V., Benkovich, Yu. L.

TITLE: Measurement of ultrasonic power

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 36, abstract 4G300 (V sb. "Prom. primeneniye ul'trazvuka, Kuybyshevsk. aviats. in-t". Kuybyshev, 1961, 57-71)

TEXT: For measuring ultrasonic power on the basis of the oscillation amplitude of the surface of a vibrator, the authors developed an instrument containing a HF-inductive pickup in which the variation of the Q-factor with oscillations is used. Graduation is carried out in static displacements and is maintained up to 50 kc. The power was also measured by means of an ultrasonic device with a thermal detector based on the measurement method involving the heating rate of the absorber at the start of irradiation. The authors made a time-constant selection for the differentiating circuit of this instrument. For visualization of ultrasonic fields and for quantitative evaluation of the power at any point, the method of film-photometry was used.
[Abstracter's note: Complete translation]
Card 1/1

S/194/62/000/004/053/105
D295/D308

AUTHORS: Skobelev, O. P., Bykhovskiy, Yu. R., Pshenichnikov, Yu. V. and Benkovich, Yu. L.

TITLE: The measurement of ultrasonic power

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4-5-29t (V sb. Prom. primeneniye ul'trazvuka. Kuybyshevsk. aviats. in-z. Kuybyshev, 1961, 57-71)

TEXT: Three methods for the measurement of ultrasonic-radiation power or intensity are suggested and the apparatus used in the measurements is described. Since the radiation intensity in a plane wave in the absence of cavitation in the medium, is proportional to the square of the amplitude of the displacement of the surface of the radiator, an instrument has been devised that measures ultrasonic intensity on the basis of measurements of the amplitude of the oscillations. The latter is measured by means of an inductive pickup placed at a determined distance from the sur-

Card 1/3

The measurement of ...

face of the vibrator. In the presence of oscillations of the surface of the radiator, eddy currents arise in the coil of the pick-up and its Q-factor varies. At the same time, the resonant frequency of the circuit (of which the pickup coil is a component part) varies, and changes the impedance of the circuit, which is determined by means of a frequency discriminator. The circuit is fed from a stabilized generator working at a frequency of 6 Mc/s. When the surface of the radiator oscillates, an alternating voltage appears at the output of the discriminator, and is recorded by a valve voltmeter. The calibration of the instrument is carried out by displacing the vibrator according to static method. The *UAB-2* (IAV-2) instrument can work over a frequency range up to 50 kc/s. A thermo-acoustical method for the measurement of ultrasonic intensity is considered. The authors think that the most convenient method is the measurement of the rate of heating of a thermally non-insulated absorber at the beginning of irradiation, since in this case it is possible to calibrate the instrument by calculation. The pickup is a thermistor covered by a layer of organic-glass absorber, and a second thermistor serves for.

Card 2/3

The measurement of ...

compensating the temperature of the liquid. The construction of two pickups is described. The thermistors are connected to the arms of a d.c. measuring bridge. The unbalance voltage of the bridge is differentiated, amplified and applied to a recording device; there is an electronic voltmeter at the output. The UAM-2(IAM-2) instrument is designed for operation in the frequency band of magnetostriction vibrators. Information is given as to the possibility of using a photo-diffusion method (with the subsequent photometry of sound-irradiated films) for estimating the distribution of ultrasonic field intensity. [Abstracter's note: Complete translation.]

Card 3/3

L 20376-65 EWT(1)/T/EWP(k) Pf-4/P1-4 ESD/AFWL/ASD(a)-5/ESD(c)/
ESD(gs) MLK
ACCESSION NR: AT5001219 S/0000/61/000/000/0029/0037

AUTHOR: Miller, Yu. A.; Bykhovskiy, Yu. S.

TITLE: The KuAI ultrasonic generators 13+1

SOURCE: Vsesoyuznaya mezhvuzovskaya konferentsiya po promyshlennomu primeneniyu ul'trazvuka. Kuyby*shev, 1960. Promyshlennoye primeneniye ul'trazvuka (Industrial application of ultrasound); trudy* konferentsii. Kuyby*shev, 1961, 29-37

TOPIC TAGS: ultrasonic equipment, electronic engineering, electronic test equipment

ABSTRACT: Two ultrasonic generators developed at the KuAI are described. The purpose of the design was to develop simple and reliable generators of small size, small weight, and a minimum number of controls, suing standard commercial units where possible. Detailed circuit diagrams are presented, and the operation of the generator proper and of the power supply are described. The mechanical construction and some of the main parts are also described. The main parameters are listed in Table 1 of the enclosure. The generators can be serviced by persons

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L 20376-65
ACCESSION NR: AT5001219

with minimum training. The use of standard equipment facilitates large scale production of the generators. One of the generators (GUZ-1.5 N) is now produced in limited quantities at the experimental plant of KuAI. Orig. art. has: 7 figures.

ASSOCIATION: None

SUBMITTED: 11May61 ENCL: 01

SUB CODE: EE, GP NR REF SOV: 005 OTHER: 000

Card 2/3

S/194/62/000/005/082/157
D222/D309

24.1800

AUTHORS: Miller, Yu.A., and Bykhovskiy, Yu.S.

TITLE: Ultrasound generators of the KuAI

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 5, 1962, abstract 5-5-35 v (V sb. Prom. primeneniye ul'trazvuka. Kuybyshevsk. aviats. in-t, Kuybyshev, 1961, 29-37)

TEXT: The circuit diagrams and construction of two relatively simple industrial valve ultrasound-generators are described, which are distinguished by their small size, small weight and sufficiently high efficiency with reliable and stable operation. Generator ГУЗ-1, 5Н (GUZ-1, 5N) is intended for the excitation of magnetostrictive transducers, and ГУЗ-1, 5В (GUZ-1, 5V) for piezoelectric ones. In order to reduce the influence of loading on the frequency and operating conditions of the generator, GUZ-1, 5V uses a circuit with two tuned circuits which are coupled by a common electron flow. The difference between GUZ-1, 5N and GUZ-1, 5V is that the anode tuned circuit for the production of the useful power is replaced by a

Card 1/2

Ultrasound generators of the KuAI

S/194/62/000/005/082/157
D222/D309

periodical transformer with a ferro-magnetic core in the first one. The circuits of the generators are given and the constructional details and component units are described. [Abstractor's note: Complete translation].

Card 2/2

S/032/62/028/012/009/023
B108/B186

AUTHORS: Aksenov, G. I., Bykhovskiy, Yu. S., and Minayev, Ye. M.

TITLE: A method of non-contact measurement of the electrical conductivity of nonmagnetic materials

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 12, 1962, 1467 - 1469

TEXT: A method to measure the electrical resistance of pressed metal powder rings without the specimens being in electrical contact was developed. The ring to be examined is placed on a transformer yoke as the secondary winding. By adjusting equal magnetic fluxes through the specimen 0 and through the standard coil w_2 (indicated at the zero bridge with windings w_3, w_4 and rectifiers B_1 and B_2) one can calculate the resistance of the specimen from the equation $R_{sp} = R/w_2^2$, since the specimen constitutes only one turn. R is the resistance of the resistor and capacitor sets. The error in determining the resistivity of copper specimens does not exceed 0.3%, that for stainless steel is 1% at most. There are 3 figures.

Card 1/2

ASSOCIATION: Kuybyshevskiy aviatsionnyy institut (Kuybyshev Aviation Institute)

Card 2/2

ACC NR: AR6034975 (N) SOURCE CODE: UR/0272/66/000/008/0059/0060

AUTHOR: Bykhovskiy, Yu. S.; Shaternikov, V. Ye.; Nerubay, M. S.

TITLE: Noncontact measurement of ultrasonic oscillation amplitude in magnetostrictive transducers

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 8.32.475

REF SOURCE: Nauchn. tr. vuzov Povolzh'ya, vyp. 2, 1965, 117-126

TOPIC TAGS: oscillation, magnetostriction, eddy currents, ultrasonic machining

ABSTRACT: The measurement of ultrasonic oscillation amplitude has become a prerequisite with the introduction of ultrasonics in cutting heat-resistant titanium alloys. For instance, in machining EI-437B high-temperature alloy the tool resistance may increase twice as much or be reduced by a factor of 1.4, depending on the amplitude A to 0.0015 up to 0.005 mm, respectively, all other conditions being equal. Amplitude measurements are necessary in the 0.5—20 μ range and frequency range up to 40 kilocycles in the presence of a high-tensity magnetic

Card 1/3 UDC: 534.838:538.65.083.8

ACC NR: AR6034975

field and variable dielectric loss in the lubricant-coolant fluid. Under shop conditions only eddy current transducers are found to meet the requirements. In these transducers, the reverse effect is measured on the primary coil by eddy currents generated in the conductive surface induced by the transducer's electromagnetic field. Another concept of eddy current transducers design features gaps commensurable with the dimension of the coil. The method makes it possible to calculate both the active resistance and insertion impedances. Calculations showed that the inserted active resistance markedly depends on the conductivity of the surface as well as on the gap, while the inductance depends on the gap alone. The maximum sensitivity range of C transducer lies within the range of the ratio of the gap to the coil radius 0 to 0.35, while the inductance sensitivity remains constant in the frequency range of 0.3 to 10 Mc. The relative reactance change for small displacements is just a few percent which determines the selection of the measuring circuit imbalanced bridge, which is used for comparing the transducer impedance against a standard; the measuring instrument responds to the difference of currents passing through it (100μamp corresponds to a gap change of 10μ, the total gap being 1.5 mm). The sensitivity can be increased Q^2 times (Q is the quality factor of the transducer coil) by supplying the voltage of the eddy current transducer through a cable whose capacitance resonates with the coil. An instrument based on this design concept has been built. Basically, it is a high-

Card 2/3

ACC NR: AR6034975

frequency oscillator with rated power of 7 watts and a frequency of 2.5 Mc. It measures quasi-static and dynamic motion. The effect of test-stand vibrations are filtered out by a bandpass filter with a frequency range of 2 to 50 kc. Static calibration is accomplished by a micrometer with an error of 0.5 μ. The device provides readings which are almost linear for gaps between 1.0—1.65 mm. Orig. art. has 4 titles and 12 illustrations. [KP]

SUB CODE: 20, 14/

Card 3/3

AL'TSHULER, A.Ya., inzhener; BYKHOVSKIY, Z.M., inzhener.

Deformed metal joints for waterproof underground construction. Biul. stroi. tekh. 10 no.4:25-27 F '53. (MLRA 6:12)

1. Khar'kovskoye otdeleniye Promstroyproyekta.
(Framing (Building))

BYKHOVSKIY, Zinoviy Yefimovich DECEASED c.'62 1962/6

Medicine

BAKHOVTSEV, B.B.; ORDANOVICH, A.Ye.; SHENYAVSKIY, L.A.; SHMAL'GAUZEN, V.I.

Amplitude discriminator for measuring the probability distribution of instantaneous signal values. Vest. Mosk. un. Ser. 3: Fiz., astron. 16 no.6:25-31 N-D '61. (MIRA 14:12)

1. Kafedra obshchey fiziki dlya mekhaniko-matematicheskogo fakul'teta Moskovskogo universiteta.
(Parametric amplifiers)
(Automatic control)

NEFEDOV, V.D.; BYKHOVTSEV, V.L.; U TSZI-LAN' [Wu Chi-lan]; GRACHEV, S.A.

Chemical changes taking place during the β-decay of RaD, included in the composition of radical-deficient lead derivatives.
Radiokhimiia 3 no. 2:225-228 '61. (MIRA 14:5)
(Lead compounds) (Lead--Isotopes)

TSERKOVNITSKAYA, I.A.; BYKHOVTSEVA, T.T.

Reducing properties of bivalent iron in the presence of $S_2O_3^{2-}$ ions. Zhur. anal. khim. 19 no.8:922-925 '64.

(MIRA 17:11)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

L 36261-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pu-4 IJP(c) JD/WW/JG/GS

ACCESSION NR: AT5007823 S/0000/64/000/000/0101/0106

26
B+1

AUTHOR: Tserkovnitskaya, I. A.; Bykhovtseva, T. T.

TITLE: Extractive separation of uranium with macromolecular amines

SOURCE: Leningrad. Universitet. Metody kolichestvennogo opredeleniya elementov (Methods for the quantitative determination of elements). Leningrad, Izd-vo Leningr. univ., 1964, 101-106

TOPIC TAGS: uranium separation, macromolecular amine, uranium determination, volumetric analysis, photometric analysis, luminescence analysis, diethyldithiocarbamate complex, Arsenazo complex

ABSTRACT: The separation of uranium from accompanying elements by extraction with 0.1 M solutions of isooctylbenzylamine or tri-n-octylamine in benzene or carbon tetrachloride and the determination of uranium in the presence of various cations and anions was studied. U was extracted from uranyl sulfate solutions with amine solution and the effect of interfering elements was eliminated by addition of Trilon B, reextraction with an appropriate solvent and determination of U by volumetric analysis with vanadate, photometrically by analysis of the diethyldithiocarbamate complex or by a luminescence technique. The methods gave

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L 36261-65

ACCESSION NR: AT5007823

0

good reproducible and accurate results with mixtures containing Fe, Al, Ti, V, Th, Zr, Mn, Cu, Cr, and/or Ti. The necessity to reextract the amine extracts was eliminated by complexing U(VI) with the reagent Arsenazo III, extraction with 0.1 M tri-n-octylamine in C_6H_6 or CCl_4, and determination of U from the optical density of the Arsenazo complex. Effects of accompanying elements were eliminated by addition of Trilon B (to complex Zr, Al, Fe^{3+}, Ti, V, Mn^{2+} Cr^{3+}, Cu) and by extracting U from 0.1-0.2 N HCl and at pH < 1 (to prevent extraction of rare earth elements). Orig. art. has: 4 tables, 2 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 28Sep64/ ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 002 OTHER: 004

Card 2/2

BYKHOVTSEVA, T.T.; TSERKOVNITSKAYA, I.A.

Photometric determination of antimony with pyrocatechol violet. (MIRA 18:3)
Zav. lab. 30 no.8:943 '64.

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

USSR / Human and Animal Physiology. Metabolism. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40972.

Author : Bykhovtsova, T. I.
Inst : Leningrad Veterinary Institute.
Title : Correlation of Glycemia and Phosphatemia in Relation to the Intensity of Oxidative Processes.

Orig Pub: Sb. rabot. Lenin. vet. in-ta, 1956, vyp. 18, 111-119.

Abstract: A decrease of the oxidative processes was produced in rabbits by injection of chloral hydrate or sodium nitrite. Increase of the oxidative processes was produced by insulin or adrenalin. Then, on the varying background of metabolism, glucose was

Card

BYKHOVTSOVA, T. L. Cand Biol Sci -- (diss) "The correlation of glycemia and phosphatemia ~~in cases of different~~ with various intensity of oxidizing processes in the organism." Len, 1957. 15 pp (Min of Agr USSR. Len Vet Inst), 100 copies (KL, 44-57, 99)

S/200/62/000/011/004/008
D243/D307

AUTHORS: Brekhman, I. I., Bykhovtsova, T. L., Ratimov, B. N., Suprunov, N. I. and Fedorov, B. T.

TITLE: The first results of trials of preparations of the spiny Eleutherococcus in fur farming, poultry farming and bee-keeping

PERIODICAL: Akademiya nauk SSSR. Sibirskoye otdeleniye. Izvestiya, no. 11, 1962, 123-128

TEXT: The present work extended the authors' previous investigations on the effects of Eleutherococcus. 200 minks, aged 4 months on September 3, 1961, received 1 ml/kg of fluid extract of Eleutherococcus root daily with milk. At death (November 28, 1961) their average weight exceeded that of controls by 92 g (8.1%) for males, and 57 g (7.1%) for females. Three treated animals died, as compared with 13 controls. Of the 123 animals treated, 57.4% had large pelts, 31.4% average and 23.2% small: control figures were 48%, 28.8% and 23.2% respectively. Pelt value increased by

Card 1/3

The first results of ...

5.3%. Liver and muscle glycogen, serum albumen and percent globulin rose and the albumen-globulin ratio fell from 1.55 to 1.40. In animals with 'wetting' disease, daily administration of 1 ml/kg Eleutherococcus root rapidly improved appetite and general condition and dried the affected parts of the pelt. Full recovery was reached after 3 - 5 days. The health and survival of incubator chicks was much improved after treatment with 1% solution of Eleutherococcus leaf extract. 0.5 to 2% solutions greatly increased appetite, mobility and activity, and led to earlier plumage and, in cocks, to earlier comb growth. 1 ml/kg Eleutherococcus root extract with the feed increased the weight of experimental birds, whose egg-laying capacity was also less affected by cold weather, being 2.2 times that of controls. Egg-laying began one month earlier and was more regular. The difference in the number of eggs during the experiment was 17.2% and the average weight of an egg increased by 13.5%. Bees given 0.5 - 2% solutions of Eleutherococcus root extract in sugar syrup developed faster, were more active, flew abroad earlier, flew in bad weather, and finished flying later, these effects increasing with concentration. Honey pro-

The first results of ...

duction was increased by 60% by giving a 2% extract of Eleutherococcus root and by 19% by a similar dose of leaf extract for 20 days. There are 2 figures and 2 tables.

Card 3/3

TSERKOVNITSKAYA, I.A.; BYKHOVTSEVA, T.T.

Polarographic behavior of uranyl complex compounds with organic reagents. Zhur. anal. khim. 19 no.5:574-583 '64.
(MIRA 17:8)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

BREKHMAN, I.I.; BYKHOVTSOVA, T.L.; RATIMOV, B.N.; SUPRUNOV, N.I.; FEDOROV, B.T.

First results of testing preparations derived from Eleutherococcus senticosus in fur farming, poultry husbandry and bee culture. Izv. Sib. otd. AN SSSR no. 11:123-128 '62. (MIRA 17:9)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR, Vladivostok.

BYKHOVTSEVA, T.L.

Effect of a liquid root extract of Acanthopanax on an artificial increase of blood sugars. Soob. DVFAN SSSR no.17:51 '63. (MIRA 17:9)

1. Laboratoriya fiziologii cheloveka i zhivotnykh Dal'nevostochnogo gosudarstvennogo universiteta.

M

USSR/Cultivated Plants - Fodders.

Abs Jour : Ref Zhur Biol., No 18, 1958, 82379

Author : Filev, D.S., Bykhun, V.V.

Inst : All-Union Corn Institute

Title : Comparative Productivity of Corn, Sugar Cane and Other Crops for Silage Under the Conditions of the Southern Steppe of the Ukrainian Soviet Socialist Republic.

Orig Pub : Byul. Vses. n.-i. in-ta kukuruzy, 1957, No 1, 3-7

Abstract : The greatest yield of digestible protein and nutritional units per kilogram from 1 hectare were produced by the following as shown by the investigations of the Genetic Experiment Station in Khersonskaya oblast' during 1954-1956: corn 139-143 and 3110-3323 respectively, sorghum 120-141 and 3110-3843. Soya was inferior to corn in the yield of digestible protein by 22.6% and by 64.1% in the yield of nutritional units.

Card 1/1

BYKHUN, V. V. Cand Agr Sci -- (diss) "~~The~~ Comparative yields and certain agricultural engineering ~~problems~~ of ~~s~~silage crops under conditions ~~of piedmont lands~~ of the southern steppe of the UkSSR." Kishinev, 1959. 21 pp with graphs (Min of Agr USSR. Kishinev Agr Inst im Frunze), 120 copies (KL, 45-59, 148)

BYKODAROVSKIY, V., starshiy leytenant

Without repeated attempts. Voen. vest. 38 no. 8:78 Ag '58.
(MIRA 11:7)

(Grenades)
(Military education)

BYKODOROV, S.

Response to A.Rozentals article. Mor. flot 22 no.2:27 F '62. (MIRA 15:4)

1. Kapitan VRB-2.

(Collisions at sea--Prevention)

SAVITSKIY, K.V., doktor fiz.-matem.nauk, prof.; ILYUSHCHENKOV, M.A.; BYKONYA, A.F.; BURNAKOV, K.K.

Investigation of the abrasive capacity of grinding wheels with a ceramic binder. Vest.mashinostr. 43 no.5:60-62 My '63. (MIRA 16:5)

(Grinding wheels--Testing)

RUBENCHIK, B.L. (Kiyev ul. Chelyuskintsev, 15, kv. 18); BYKOVETZ, A.I. (Kiyev, ul. Pushkinskaya, 25, kv.1)

Biochemical and morphological changes in the liver of rats during carcinogenesis induced by p-dimethylaminoazobenzene and following amaranth introduction. Vopr. onk. 9 no.4:68-75 '63. (MIRA 17:9)

L 8910-66 EWP(e)/EWT(m)/ETC/EWG(m)/T/EWP(t)/EWP(b) IJP(c) JD/JG/AT/WH

ACC NR: AP5027595 UR/0145/65/000/009/0137/0142

AUTHOR: Savitskiy, K. V. (Doctor of Physico-mathematical Sciences, Professor); Ilyushchenkov, M. A. (Aspirant); Kargopolova, T. D. (Aspirant); Rykonva, A. F. (Aspirant)

ORG: Siberian Technico-Physical Institute (Sibirskiy fiziko-tekhnicheskiy institut)

TITLE: Vacuum heat treatment of high-melting, high-hardness chemical compounds. 1. Silicon carbide

SOURCE: IVUZ. Mashinostroyeniye, no. 9, 1965, 137-142

TOPIC TAGS: heat treatment, silicon carbide, crystal property, CRYSTALLOGRAPHY, SOLID MECHANICAL PROPERTY

ABSTRACT: The article examines the effect of temperature and of the duration of vacuum annealing on the strength properties of technical grade silicon carbide. Crystals of black silicon carbide with a particle size of 1 and 2 mm were prepared. The shear fracture strength of the 2 mm particles was tested on a TsDm press at a loading rate of 6 mm min. Crystals of both sizes were tested for microhardness. The vacuum heat treatment was done in a special vacuum chamber which could sustain a temperature of 1200°C for an

Card 1/3 UDC: 546.281

ACC NR: AP5027595

indefinite time at a vacuum of not less than 10^{-3} mm Hg. The crystals were treated for 5, 10, 20, 50 and 100 hours at 1200°C. At the end of the treatment, simultaneously with determination of strength and microhardness, the weight loss was determined, and the surface of the crystals was observed photographically. Results are shown in a table and a series of figures. Results show that the shear fracture strength of crystals of black silicon crystals increases with an increase in treatment temperature. The most intensive rise in strength takes place at a treatment temperature above 900°C; after treatment at 1200°C, the crystals are approximately 20% stronger. The most intensive increase in mechanical strength of the crystals was observed for those crystals which contained the most impurities. The magnitude of this effect increases with an increase in temperature and duration of treatment. The observed loss in weight is due in part to the elimination, under vacuum, of contaminants such as calcium oxide, aluminum oxide, and free carbon, and partly to the process of decomposition of the silicon carbide into more volatile compounds such as Si, SiO_2 and Si_2C. To obtain the highest mechanical properties, there is no apparent reason to increase the duration of the treatment at 1200°C beyond 20 to 40 hours. It would be required to raise the temperature

L 8910-66

ACC NR: AP5027595

ceiling above 1200°C and to create a higher vacuum. Orig. art. has: 4 figures and 1 table.

SUB CODE: 07, 20/ SUBM DATE: 10Dec63/ ORIG REF: 007

OTH REF: 00

Card 3/3

BYKOREZ, A.I. [Bykoriez, A.I.]; KULIK, G.I. [Kulyk, H.I.]

Chronic liver diseases caused by hepatotoxic sera. Fiziol. zhur. [Ukr.] 10 no.2:271-274 Mr-Ap '64. (MIRA 18:7)

1. Ukrainskiy institut eksperimental'noy i klinicheskoy onkologii, Kiyev.

BYKOREZ, A.I. [Bykoriez, A.I.]; RUBENCHIK, B.L. [Rubenchyk, B.L.]

Inducing tumors in the rat liver with thioacetamide. Dop. AN URSR no.2:257-260 '64. (MIRA 17:5)

1. Ukrainskiy nauchno-issledovatel'skiy eksperimental'noy i klinicheskoy onkologii Ministerstva zdravookhraneniya UkrSSR i Ukrainskiy nauchno-issledovatel'skiy institut pitaniya Ministerstva zdravookhraneniya UkrSSR. Predstavleno akademikom AN UkrSSR R.Ye. Kavetskim [Kavets'kyi, R.IE.].

KULIK, G.I. [Kulyk, H.I.]; BYKOREZ, A.I. [Bykoriz, A.I.]

Blood proteins in rats induced with liver tumors by p-dimethylaminoazobenzene and following the introduction of hepatocytotoxic serums. Ukr. biokhim. zhur. 36 no. 4:559-564 '64.
(MIRA 18:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii Ministerstva zdravookhraneniya UkrSSR, Kiyev.

BYKOV, A., podpolkovnik

Through virgin snow. Voen. vest 43 no.1:33-36 Ja '64. (MIRA 17:1)

BYKOV, A.

BYKOV, A., kand.tekhn.nauk; FROLOV, S., kand.tekhn.nauk.

Sized fabrics (from "Skinner's Silk and Rayon Record" no.1, 1957). (MIRA 10:10)
Leg.prom. 17 no.8:3 of cover Ag '57.
(Sizing (Textile))

66-1-7/26

AUTHOR: Bykov, A., Engineer.

TITLE: Provisional i-log p diagram of freon-142 ($C_2H_3F_2Cl$). (Predvaritel'naya diagramma i-log p freona-142)

PERIODICAL: "Kholodil'naya Tekhnika" (Refrigeration Engineering), 1957, No.1, pp.23-25 (U.S.S.R.)

ABSTRACT: Freon-142 is being used to an increasing extent as a cooling agent in the Soviet Union. Comparative calculations were made of the cooling cycle for an air conditioning unit intended for a crane control cabin, using various types of freons, so as to determine the most effective medium for the given set of conditions. For the given conditions freon-142 seemed to be the most advantageous. On the basis of a table of the saturated vapours published in a paper by Prof. I. S. Badyl'kes (Khol. Tekh. No.2, 1953) and data on super-heated freon-114 vapours (American "Refrigerating Data Book", 1955), the i-log p diagram has been worked out by the author of this paper for freon-142. Testing of refrigerating machinery with freon-142 effected by TsKBKhM has confirmed the practical applicability of this diagram in engineering calculations. There are two tables and 1 figure.

AVAILABLE:

Card 1/1

LYALIN, F., inzh.; BYKOV, A., inzh.

Organization of the transportation of mineral building materials should meet current demands. Rech. transp. 24 no.7:15-16 '65.
(MIRA 18:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut ekonomiki i ekspluatatsii vodnogo transporta.

BYKOV, A., inzh.

Piston compressors of small and medium refrigerating capacities.
Khol.tekh. 37 no.2:71-73 My-Ap '60. (MIRA 13:10)
(Czechoslovakia--Compressors)

BYKOV, A., inzh.

Use of freon-143 in single-stage low-temperature machines. Khol. tekh. 37 no.5:27-29 S-O '60. (MIRA 13:10)

1. TSentral'noye konstruktorskoye byuro kholodil'nogo mashinostroyeniya.

(Freons)
(Refrigeration and refrigerating machinery)

BYKOV, A.

Develop the initiative and activity of workers. NTO 2 no.10:43-46 O '60. (MIRA 13:10)

1. Predsedatel' Sverdlovskogo oblastnogo soveta profsoyuzov.
(Sverdlovsk Province--Technological innovations)

BYKOV, A., polkovnik, nachal'nik politotdela soyedineniya; POPOV, N., mayor starshiy instruktor politotdela po orgpartrabote.

Party activities are the mainstay of political departments. Komm.Vooruzh.Sil 1 no.6:44-48 D '60. (MIRA 14:8)
(Russia—Armed forces—Political activity)

BYKOV, A.

Operating E-505 excavators. Mekh. stroi. 18 no.5:22 My '61.
(MIRA 14:7)

1. Kontora mekhanizatsii rabot tresta Al'met yevneftestroy, g. Al'met'yevsk.

(Excavating machinery)

BYKOV, A

85-53-6-13/43

AUTHORS: Bykov, A., Gadyl'shin, A., Nadirov, A., Engineers

TITLE: "Komsomolets" Airplane (Samolet "Komsomolets")

PERIODICAL: Kryl'ya rodiny, 1958, Nr 6, pp 14-15 (USSR)

ABSTRACT: The authors relate how in May 1957 a group of Komsomol engineers (Bykov, B. Burov, G. Bikulev, Gal'dyshin, Nadirov, V. Mayorov, and V. Ozhegov) and technicians (L. Akinin and I. Zherebtsov) working during their leisure time completed plans for a two-seater jet trainer. This plane was not approved by the pertinent organization because its speed exceeded that intended for this type of machine. The group then designed the Komsomolets, a single-seater jet sports plane for aerial acrobatics and distance record flying. Its flight characteristics are: wing spread 7.8 m.; length of plane 10 m.; height of plane 3.58 m.; wing area 15 m^2; maximal speed 148 km/hr; landing speed 114 km/hr; flight weight 2,500 kg.; fuel capacity 600 kg. The engineers decided to construct the experimental model themselves in off hours; this was approved by the directors of the plant, its technical council and the Party Committee. There are sketches and a cutaway drawing of the Komsomolets as well as 20 photographs of engineers and builders.

Card 1/1 1. Civil aviation---USSR 2. Airplanes--Design

BARABANOV, A., brigadir; AREF'YEV, B.; MOSHKIN, G.; CHISTYAKOV, V.; PETRUSHIN, V.; VLADIMIROV, L.; BYKOV, A.; PETROV, M.; OGANESYAN, S.

The party's program is a banner for a nation-wide effort in building communism. Rech. transp. 20 no.8:3-4 Ag '61. (MIRA 14:10)

1. Brigada kommunisticheskogo truda Moskovskogo sudostroitel'nogo i sudoremonstnogo zavoda (for Barabanov). 2. Rektor Leningradskogo instituta vodnogo transporta (for Aref'yev). 3. Kapitan volzhskogo teplokhoda "Tallin" (for Moshkin). 4. Master stanochnogo uchastka derevoobdelochnogo tsekha Moskovskogo sudostroitel'nogo i sudoremontnogo zavoda (for Chistyakov). 5. Master mekhanicheskikh masterskikh moskovskogo Zapadnogo porta (for Petrushin). 6. Vedushchiy konstruktor TSentral'nogo proyektno-konstruktorskogo byuro Ministerstva rechnogo flota (for Vladimirov). 7. Nachal'nik Stalingradskogo porta (for Bykov). 8. Nachal'nik tekhnicheskogo otdela moskovskogo Yuzhnogo porta (for Petrov). 9. Kapitan teplokhoda "Zaraysk" Moskovskogo rechnogo parokhodstva (for Oganesyan).
(Communism) (Inland water transportation)

BYKOV, A. A.

Gruzovoe delo./Cargo matters_/ Dopushcheno v kachestve ucheb. posobiia dlia shturmanskikh otd-nii rechnykh uchilishch i tekhnikumov. Moskva, Izd-vo Ministerstva rechnogo flota SSSR, 1950. 346 p. illus.
(Review in Rechnoi transport, 1950, no.3, p. 4 of cover and no. 4, p.21)
Bibliography: p./ 341_/ DLC: VK 235.B9

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress Reference Department, Washington, 1952, Unclassified.

БУКЕ, А А

AID P - 3824

Subject : USSR/Mining

Card 1/2 Pub. 78 - 12/25

Authors : Orekhovskiy, F. V. and A. A. Bykov

Title : Ways to increase the effectiveness of seismic prospecting in the Kuybyshev Volga Region

Periodical : Neft. khoz., v. 33, #11, 63-69, N 1955

Abstract : In the Kuybyshev Volga Region, oil-bearing strata are found in Carboniferous and Devonian uplifts. Those horizons are located at a depth of 1600-2000 m and therefore are difficult to explore by prospecting drillings. The seismic method of geological prospecting is therefore the most convenient, particularly the refraction method of shooting in which sound waves travelling at definite velocities through rocks of similar material are recorded. The author outlines difficulties which have been encountered in this location in getting satisfactory results, proposes conducting some of the shooting from the depths of

AID P - 3824

Neft. khoz., v. 33, #11, 63-69, N 1955

Card 2/2 Pub. 78 - 12/25

existing wells, and suggests some other means of improving those prospecting operations.

Institution : None

Submitted : No date

OREKHOVSKIY, F.V.; BYKOV, A.A.

Results of using seismic prospecting methods during the winter in the Kuybyshev region of the Volga Valley. Razved.i okh.nedr 22 no.2:36-42 F '56. (MLRA 9:6)
(Kuybyshev Province--Prospecting--Geophysical methods)

BYKOV, A.A., and GREKHOVSKIY, F.V.,

"Experience in the Use of Seismographic Prospecting Under Winter Conditions in the Kuibyshev Region Along the Volga," Publ in Prospecting and Conservation of Natural Resources, No 2, Feb. 56, pp 36-42.

BYKOV, Andrey Aleksandrovich; CHALKIN, I.Ya., red.; ALEKSEYEV, V.I., red.izd-va; YERMAKOVA, T.T., tekhn.red.

[Navigation on inland waterways] Sudovozhdenie po vnutrennim vodnym putiam. Moskva, Izd-vo "Rechnoi transport," 1959. 326 p. (MIRA 12:6)

(Inland navigation)

BYKOV, A.A.; YELANSKIY, L.N.

Structure of the basement surface in the trans-Volga portion of Kuybyshev Province. Geol.nefti i gaza 6 no.3:28-31 Mr '62. (MIRA 15:4)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut po pererabotke nefti.

(Kuybyshev Province—Prospecting—Geophysical methods)
(Kuybyshev Province—Petroleum geology)

S/133/63/000/004/005/011
A054/A126

AUTHORS: Meandrov, L. V., Golovanenko, S. A., Bykov, A. A., Myagkov, A. P., Korotkevich, B. M., Borisov, A. N., Kossovskiy, L. D., Gindin, A.Sh.

TITLE: Experimental rolling of bimetal sheets

PERIODICAL: Stal', no. 4, 1963, 343 - 346

TEXT: Tests were carried out at the Chelyabinskiy metallurgicheskiy zavod (Chelyabinsk Metallurgical Plant) with the participation of N. P. Shchukin, V. D. Nikitin, S. A. Zuyev, V. P. Nikitin, N. N. Danilovich, N. V. Zerchaninov, V. V. Shturts, V. A. Ustimenko, V. V. Silant'yev, to establish the technology of bimetal sheet production. Symmetric (4-layer, 150 - 220 mm thick) and asummetrical (3-layer, 135 mm thick) sheets were produced. The nickel coating was applied in some tests by the standard electrolytic method, in some tests, however, a new process was employed with a special apparatus, involving the melting of a 1.5-mm diameter nickel wire, which was thereupon applied to the sheet surface by pulverization. Prior to this the surface to be coated was shot-blasted. A 600 x x 1,750 mm sheet could be coated by this process with a 40 μ thick nickel layer

Card 1/2

in 20 minutes. The new method proved more advantageous than the conventional one: it required less time and no pickling. The pulverizing apparatus is simple, inexpensive and easily adjustable to automation. After coating the bimetal sheets were welded air-tight on the perimeter and the end surfaces. The rolling tests were made on a 2,300-mm stand at Chelyabinsk by the standard method. The welding seams prevented warping and lamination of the bimetal sheets. The tightness and the strength of the seams depended on the surface quality of the stainless and carbon steels composing the sheet and on the assembly and welding of the sheet layers. The deformation of the various layers in rolling was not uniform. This deviation in deformation was characterized by an experimental coefficient that in case of 4 - 10 mm thick sheets depended in the first place on the metal grade of the coating layer, but was independent of the total reduction in the investigated range of deformations. For sheets of Ст.3сп/St.3sp + Х 18 Н10Т / Kh18N10T grades the average coefficient value was 0.94 - 0.96, for sheets of St.3sp + 1Х 13/1Kh13 steel grades: 1.03 - 1.05. There are 4 figures and 1 table.

ASSOCIATION: TsNIIChM, Chelyabinskiy NIIM (Chelyabinsk NIIM, ChMZ)

ALEXANDROV, L.V.; GOLOVANENKO, S.A.; TARLINSKIY, D.I.; BYKOV, A.A.

Pack rolling of two-layer stainless steel. Biul.tekh.-ekon.inform. Gos.nauch.-issl.inst.nauch.i tekh.inform. 16 no.8:6-9 '63. (MIRA 16:10)

L 20469-66 EWT(1)/EWA(h) GW

ACC NR: AP6012054 SOURCE CODE: UR/0210/65/000/009/0131/0137

AUTHOR: Bykov, A. A.; Chalikova, Ye. K.

ORG: Kuybyshev Scientific Research Institute of the Petroleum Industry (Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti)

TITLE: Influence of interference of diffracted and reflected waves on the characteristics of a seismic record

SOURCE: Geologiya i geofizika, no. 9, 1965, 131-137

TOPIC TAGS: shock wave diffraction, reflected shock wave, ultrasonic equipment, piezoelectric crystal, seismology

ABSTRACT: An experiment in the modeling of diffracted waves was carried out at the Kuybyshev Institute of the Petroelum Industry in 1964. An attempt was made to clarify the relation of the intensity of reflected and diffracted waves and the character of the recorded wave pattern as a function of diffracting discontinuities. An ultrasonic pulse apparatus was used; the source and receiver were piezoelectric elements of Rochelle salt in the form of a cube measuring 10x10x10 mm. The experiments were made in three-dimensional liquid-solid models. The models used consisted of layers and plates of paraffin and plexiglass in which faults and flexures were simulated. Three types of models were used. Analysis was

Card 1/2 UDC: 550.834: 550.89

L 20469-66

ACC NR: AP6012054

based on theoretical and observed phase and dynamic travel-time curves. The diffracting waves could be traced for considerable distances. Their intensity varied and was dependent on the position of the source and receiver relative to the diffracting discontinuity. Directly over the discontinuity and close to it the intensity was relatively great and comparable to the intensity of the reflected waves. With increasing distance from the discontinuity the intensity decreases rapidly and becomes 5-10 times less than the intensity of the reflected wave. The interference of the diffracted and reflected waves is manifested most strongly when the source and the receiver are situated near the diffracting discontinuity. The influence of the interference is manifested both in an increase and in a decrease of the amplitudes of the total oscillation. The practical importance of such studies is pointed out. Orig. art. has: 7 figures and 1 table. [JPRS]

SUB CODE: 20, 08 / SUBM DATE: 31Oct64 / ORIG REF: 006

Card 2/2 LJC

GLADYREVSKAYA, S.A.; MEANDROV, L.V.; GOLOVANENKO, S.A.; BYKOV, A.A.; KLINOV, I.Ya., doktor tekhn. nauk, prof., retsenzent; BLAGOSKLONOVA, N.Yu., inzh., red.

[Two-layer steel in chemical machine building] Dvukhsloinye stali v khimicheskom mashinostroenii. Moskva, Mashinostroenie, 1965. 151 p. (MIRA 18:5)

L 36134-66 EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HM/HW

ACC NR: AT6016760 (N) SOURCE CODE: UR/2776/65/000/042/0045/0054

AUTHOR: Meandrov, L. V.; Bykov, A. A.

ORG: none

TITLE: Rolling of large-sized bimetal sheets with a cladding layer of highly deformation-resistant steel

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 42, 1965. Proizvodstvo bimetallow (Production of bimetals), 45-54

TOPIC TAGS: corrosion resistant steel, carbon steel, bimetal, metal cladding, metal rolling, chemical plant equipment / OKh23N28M3D3T corrosion resistant steel, St.3 carbon steel

ABSTRACT: The article describes the development of the optimal regime for the fabrication of bimetal sheets with a cladding layer of OKh23N28M3D3T (EI943) corrosion-resistant stainless steel (0.06% C, 0.8% Si, 0.8% Mn, 22-25% Cr, 26-29% Ni, 0.4-0.7% Ti, 2.5-3.0% Mo, 0.02% S, 0.035% P, 2.5-3.5% Cu) and a base layer of St. 3 carbon steel, designed for the construction of railroad acid cisterns and chemical apparatus. The principal problem was that of rolling slabs of EI943 steel into 16-30 mm thick sheets prior to their assembling and welding with sheets of the base metal. Since the temperature range of hot deformation (1100-1170°C) for EI943 steel is much

Card 1/3

lower than for St. 3 carbon steel, forged sheet bars of EI943 steel were hot-rolled into thinner sheets at <1050°C. The metal thus rolled displayed no cracks and tears. Another problem was that of the high Cr content of EI943 steel, this being conducive to exfoliation of the bimetal sheets. In the course of experiments it was established that protective galvanic coating with nickel eliminates this danger. The bimetal sheets themselves are produced by rolling assembled and welded four- and two-layer packs (Fig. 1), the former being subsequently separated into two two-layer sheets.

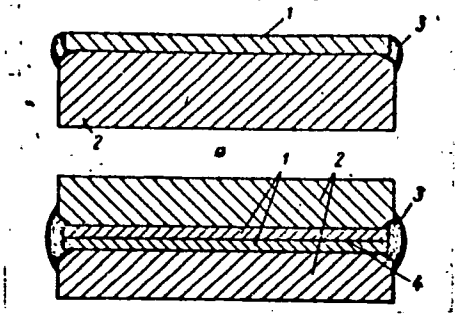


Fig. 1. Methods of assembling two-layer (a) and four-layer (b) packs in laboratory conditions:

1 - cladding metal; 2 - base metal; 3 - weld; 4 - separating layer

L 36134-66
ACC NR: AT6016760

Thus, by adapting the preliminary hot rolling temperatures to the fact that EI493 steel is an austenitic steel with an extremely complex structure which causes it to display a higher deformation resistance and lower plasticity than ordinary steels, and by developing a method of offsetting the adverse effect of the high Cr content of this steel on the strength of adhesion between cladding layer and base layer, it was possible under conditions of experiment to roll one ton of bimetal sheets measuring 5 and 10x190x290 mm, on expending ~260 kg of EI943 steel (20% cladding by weight) for this purpose. Orig. art. has: 4 figures, 3 tables.

SUB CODE: 13, 11 / SUBM DATE: none/ ORIG REF: 001/

joining of dissimilar metals 18

pack rolling 19

Card 3/3

L 36137-66 EWT(d)/EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) IJP(c)

ACC NR: AT6016763 JD/HM/HW(N) SOURCE CODE: UR/2776/65/000/042/0070/0076

AUTHOR: Meandrov, L. V.; Bykov, A. A.; Shilkin, Yu. V.; Sonin, S. I.; Dus', V. V.; Chernyshov, O. G.

ORG: none

TITLE: Rolling of nickel-steel-nickel sandwich strip

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 42, 1965. Proizvodstvo bimetallov (Production of bimetals). 70-76

TOPIC TAGS: ELECTRONIC EQUIPMENT, ROLLING mill, bimetal, nickel, steel, metal rolling / "450" ROLLING MILL

ABSTRACT: The use of laminated Ni-steel-Ni strip would make it possible to save nickel in the production of Ni strip designed for the fabrication of various electronic instruments. Accordingly, the authors describe the pack-rolling method they developed for this purpose. Ni sheets measuring 5x195x295 mm and St.3 steel sheets measuring 25x200x300 mm, were welded together, heated to 1250°C and rolled in a "450" sheet mill into 3 mm thick bimetal (7 roll passes). The resulting product was pickled and cut into 90 mm wide strips which were cold-rolled in a four-high stand to a thickness of 0.2 mm. The mechanical properties of the finished 0.2 mm thick strip were found to be satisfactory. Subsequent pilot-industrial production of this trip revealed some shortcomings in the strength of adhesion between the sheets; this was remedied by changing

Card 1/2

L 36137-66

ACC NR: AT6016763 2

the design of the welding groove to a swallowtail shape. As ultimately worked out under industrial conditions, the flowsheet for the production of this strip is as follows: a) preparation and assembling of bimetal sandwich strip; b) hot rolling of strip to 3.0-3.5 mm; c) pickling; d) cold rolling to thickness of 1.8-2.0 mm; e) cutting to 200 mm width; f) bright annealing; g) cold rolling to 0.60 mm; h) bright annealing; i) cold rolling to 0.1, 0.2 and 0.3 mm; j) cutting, heat treatment and finishing of strip. Tests of components of electronic apparatus manufactured from Ni-steel-Ni sandwich strip produced positive results. Orig. art. has: 3 figures, 3 tables.

SUB CODE: 13, 11, 09/ SUBM DATE: none/ ORIG REF: 001

Joining of Dissimilar Metals

Card 2/2

BYKOV, A.D.

Engraver or nature? Priroda 54 no.10:112-113 '65.

(MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut alyuminiyevoy, magniyevoy i elektrodnoy promyshlennosti, Leningrad.

BYKOV, A.D.

Proarizonite as a secondary mineral of the supergene altera ion of ilmenite. Dokl. AN SSSR 156 no. 3:567-570 '64. (MIRA 17:5)

1. Predstavleno akademikom D.I.Shcherbakovym.

BYKOV, A.D.

Characteristics of the composition of titanium-bearing placers and main problems in their treatment. Izv. vys. ucheb. zav.; tsvet. met. 8 no.3:13-16 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut alyuminiyevoy, magniyevoy i elektrodnoy promyshlennosti.

BYKOV, A.F., inzh.

Designing closing controllers with ball valves. Vest.mashinostr. 44 no.1:17-19 Ja '64. (MIRA 17:4)

L 11973-66 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(j)/T/EWP(t)/EWP(k)/EWP(h)/EWP(z)/EWP(b)

ACC NR: AP5028984 EWP(1) MJW/JD/WW/DJ RM SOURCE CODE: UR/0122/65/000/009/0013/0015

44 55

AUTHOR: Bykov, A. F. (Engineer)

67 25

ORG: none

TITLE: Design of a pneumatically activated ball valve

SOURCE: Vestnik mashinostroyeniya, no. 9, 1965, 13-15

TOPIC TAGS: valve, ~~remote control~~ flow regulator, bronze, teflon, gas flow, PNEUMATIC DEVICE

ABSTRACT: The operation of a pneumatically activated ball valve is described, and design equations are derived for the geometry shown in Fig. 1. Ball 1 can rotate through 90° in seals 2 under the action of rod 3 which receives its rotation from a press-fitted rod 4 (with bearings 5) which follows helical path when activated by pneumatic piston 6. Since the flow characteristics of a manual ball valve and its design were previously discussed by the author (Nekotoryye voprosy proyektirovaniya zaporno-reguliruyushchey armatury s sharovym zatvorom. Vestnik mashinostroyeniya, 1964, No. 1), only the activating mechanism is considered in detail in this paper. Assuming the forces on the ball and actuator as shown in Fig. 2, the relationship between the angles is derived as

Card 1/4 UDC: 621.646.651.001.24

L 11973-66

ACC NR: AP5028984

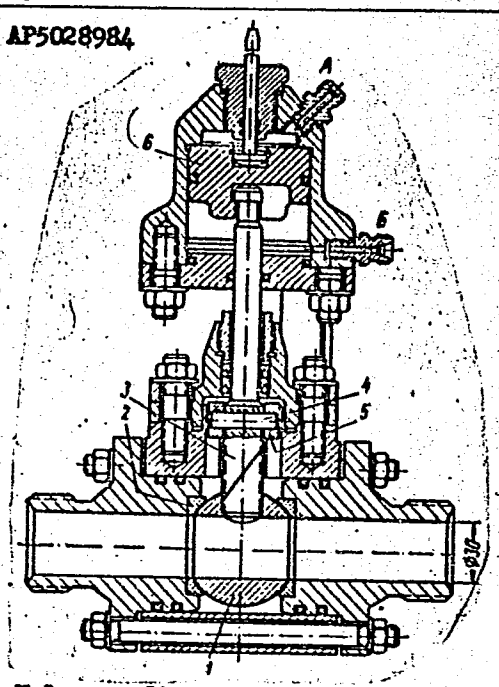


Fig. 1. Valve configuration.

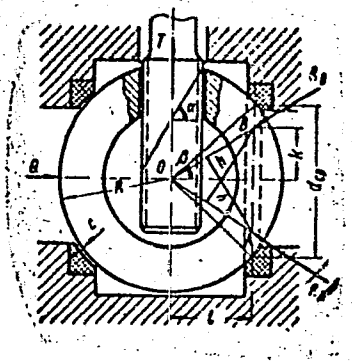


Fig. 2. Ball valve geometry and forces.

Card 2/4

$$\operatorname{tg}(\alpha-\varphi)=\frac{2{,}62fR(1+\cos\beta)}{d_{av}\sin\beta},$$

(where $\alpha \approx 8^{\circ}$ and d_{av} = average diameter of connection). The pitch of the screw should be

$$t=\pi d_{av}\operatorname{tg}\alpha_{mexn}.$$

The following design procedure is recommended: after choosing proper ball diameter from the reference quoted above, determine the friction torque by

$$M_{T.m}=Nf\frac{R(1+\cos\beta)}{2},$$

next determine angle α (equation given previously) and axial force T by

$$M_{ma}=T\operatorname{tg}(\alpha-\varphi)\frac{d_{av}}{2},$$

(where M = torque developed by screw action); M_T (friction torque is derived in quoted reference); find the pneumatic piston diameter by considering equilibrium

L 11973-66

ACC NR: AP5028984

of force. The recommended materials are bronze for the ball, teflon for seals, and steel 2Kh13 or EI654 for the ball rod. Orig. art. has: 4 figures and 14 formulas.

SUB CODE: 13/ SUBM DATE: none/ SOV REF: 003

Card 4/4

BYKOV, A.G., starshiy master.

Apparatus for testing dielectric overshoes, rubbers, and gloves with high voltage. Energetik 1 no.6:20-22 N '53. (MLRA 6:11)
(Electric insulators and insulation)

BYKOV, A.G.

Subject : USSR/Electricity AID P - 1635

Card 1/1 Pub. 29 - 17/23

Authors : Bykov, A. G., Foreman and Alyushinskaya, T. I., Eng.

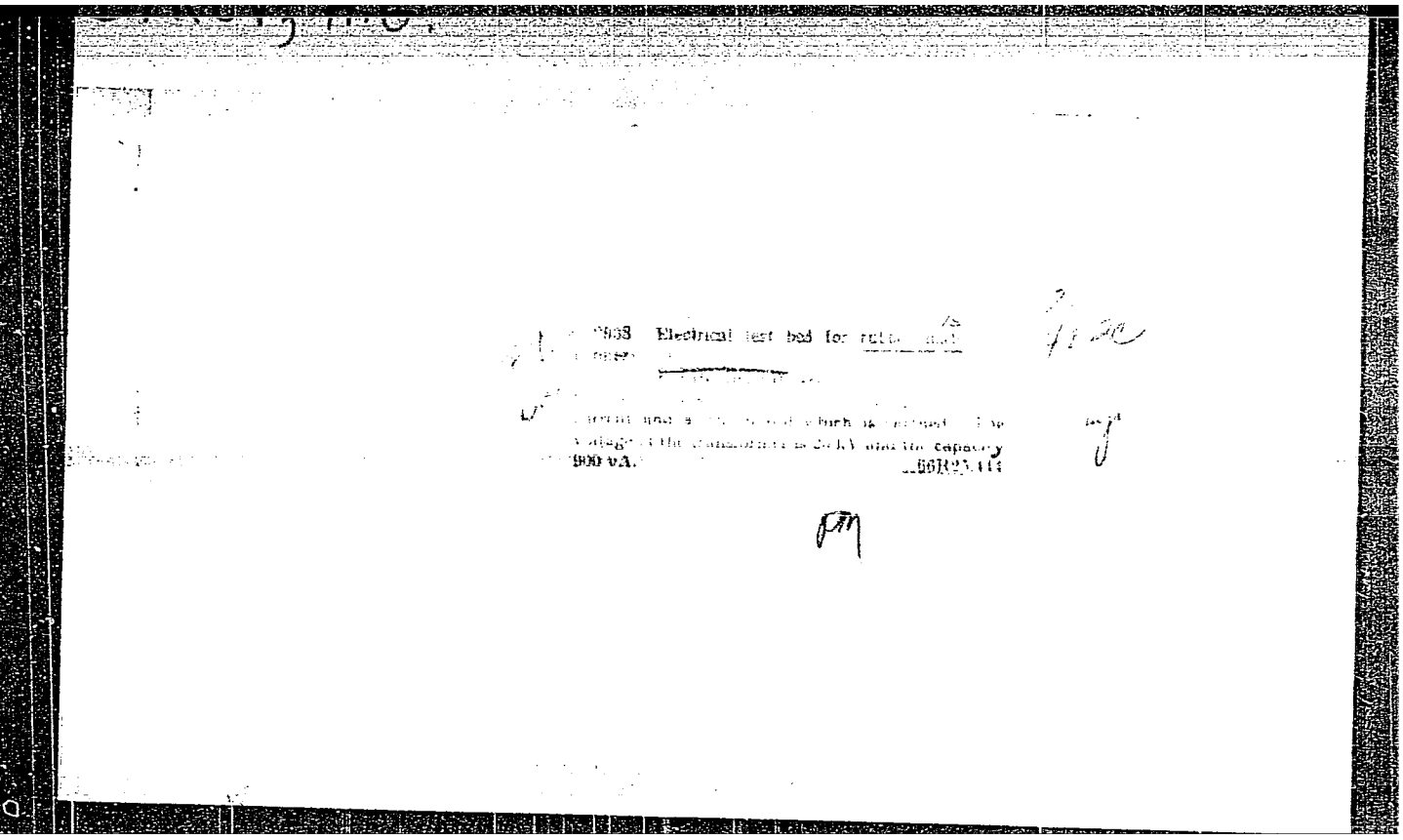
Title : Kenotron megohmmeter

Periodical : Energetik, 1, 26-27, Ja 1955

Abstract : The authors describe and illustrate with a diagram a kenotron megohmmeter for measuring insulation resistance at 1,000 to 2,500 v.

Institution: Laboratory of Lenenergo (Leningrad Power System)

Submitted : No date



Electrical test bed for

900 v.A.

BYKOV, A.I. (Sverdlovsk)

Giant sweep. Zdorov'e 5 no.12:7-8 D '59. (MIRA 13:4)

1. Predsedatel' Sverdlovskogo oblastnogo soveta profsoyuzov.
(SVERDLOVSK PROVINCE-- INDUSTRIAL HYGIENE)

BYKOV, Anatoliy Ivanovich; MOKSHIN, Stepan Ivanovich, zhurnalist; MORSHCHIKOV, V.D., red.; KOROBOVA, N.D., tekhn. red.

[Factory and plant trade-union committee is the organizer of the competition for communist labor]Fabzavkom - organizator sorevnovaniia za kommunisticheskii trud. Moskva, Profizdat, 1962. 78 p. (Bibliotechka profsoiuznogo aktivista, no.19(43)) (MIRA 15:10)

1. Predsedatel' Sverdlovskogo oblastnogo soveta profsoyuzov (for Bykov).

(Sverdlovsk Province--Trade unions)
(Sverdlovsk Province--Socialist competition)

USSR/Engineering - Tools

Card 1/1 Pub. 103 - 20/29

Authors : Bykov, A. M., and Kuzmichev, P. I.

Title : Ratchet wrench

Periodical : Stan. i instr. 10, page 34, Oct 1954

Abstract : A short description of a ratchet wrench for tightening nuts and bolts is presented together with drawings depicting the disposition of its components.

Institution : ...

Submitted : ...

SOV-115-58-3-13/41

AUTHORS: Bykov, A.M., and Kuzmichev, P.I.

TITLE: Measuring Devices with Spring Supports (Izmeritel'nyye prisposobleniya s pruzhinnymi oporami.)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 3, pp 41 - 42 (USSR)

ABSTRACT: New measuring check-devices for workshop use developed by the authors, and each comprising flat spring elements, are described in detail and illustrated by detailed drawings. 1) A device for checking the pitch diameter of the thread on studs (Fig. 1), eliminating the use of the conventional ring gages which require complex production operations, wear out and then lose the needed accuracy. The design has proved successful in continued practical use. 2) A checking device for interaxis distances of parts, of up to 0.01 mm accuracy (Fig. 2), comprised of split heads (Fig. 3) and a floating

Card 1/2